

### **ABSTRACT**

A process and system for condensing a multi-component fluid is disclosed, where the process and system are designed to provide a substantial increase in a heat transfer coefficient during condensation of multi-component fluids resulting in a drastic reduction in size and cost of heat exchangers need to condense such fluids. The system and method includes a plurality of heat exchangers and at least one scrubber and splitters and mixers supporting streams that allow a mixed stream to be supplied to each heat exchange unit having parameters designed to increase, optimize or maximize the heat transfer coefficient in each heat exchanger.

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